(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 23 December 2004 (23.12.2004)

PCT

(10) International Publication Number WO 2004/111584 A3

(51) International Patent Classification⁷: G01K 11/00

G01S 3/789,

(21) International Application Number:

PCT/GB2004/002520

(22) International Filing Date: 11 June 2004 (11.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0313573.8

12 June 2003 (12.06.2003) G

(71) Applicant (for all designated States except US): QINE-TIQ LIMITED [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).

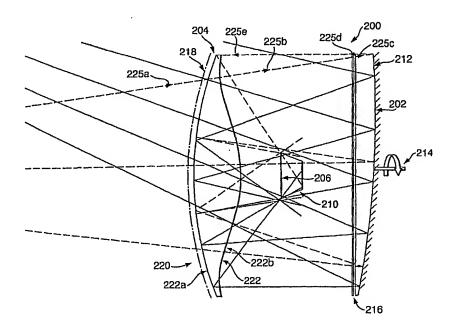
(72) Inventors; and

(75) Inventors/Applicants (for US only): ANDERTON, Rupert, Nicholas [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcs. WR14 3PS (GB). COWARD, Peter, Russell [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcs. WR14 3PS (GB). PRICE, Sean [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcs. WR14 3PS (GB).

- (74) Agent: CLARKE, Alan; QinetiQ Ltd., IP Formalities, Cody Technology Park, A4 Building, Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: RADIATION DETECTION APPARATUS



(57) Abstract: A radiation detection apparatus (200) comprises a radiation detector (210) and a lens arrangement (218). The lens arrangement (218) comprises a polarising element (220) and an optical corrector (222). The optical corrector (222) is preferably located between the polarising element (220) and the radiation detector (210) and has at least one surface designed to correct optical aberrations present in the lens arrangement. The optical corrector may be arranged to provide a mechanical support to the polarising element. The optical corrector (222) is arranged to increase a diffraction limited acceptance angle of the apparatus (200).

04/111584 A3

(88) Date of publication of the international search report: 24 March 2005

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY